

b) Amendments to the Claims

Please amend claims 41, 42, 45 and 47 as follows. A detailed listing of all the claims that are or were in the application follows.

Claims 1 - 40. (Cancelled)

--41. (Currently Amended) An exposure apparatus comprising:

(i) a laser oscillating apparatus, said laser oscillating apparatus generating illumination light,

said laser oscillating apparatus including a gas supply path structure, including a first port serving as a first fluid inlet and a second fluid outlet, a second port serving as a second fluid inlet and a first fluid outlet and a throat portion provided between the first and second ports wherein the first and second ports are symmetric with respect to the throat portion as a center;

a gas supplier capable of supplying a laser gas into the gas supply structure in two directions such that a flow speed of the laser gas supplied in either of said two directions is less than a speed of sound at the throat portion; having a convergent-divergent nozzle, said gas supply path structure having a fluid inlet onto which a laser gas is made to flow, a throat portion for controlling a flow speed of said laser gas to less than a speed of sound and a fluid outlet of which said laser gas from said throat portion is made to flow out and a waveguide unit having a plurality of slots for guiding microwaves into said gas supply path structure,

(ii) a first optical system for radiating said illumination light from said laser oscillating apparatus onto a reticle in which a predetermined pattern is formed; and

(iii) a second optical system for irradiating said illumination light having passed through said reticle, onto a surface to be irradiated.

42. (Currently Amended) An exposure apparatus comprising:

(i) a laser oscillating apparatus, said laser oscillating apparatus generating illumination light,

said laser oscillating apparatus including a gas supply path structure group, including a first port serving as a first fluid inlet and a second fluid outlet, a second port serving as a second fluid inlet and a first fluid outlet and a throat portion provided between the first and second ports wherein the first and second ports are symmetric with respect to the throat portion as a center;

a gas supplier capable of supplying a laser gas into the gas supply structure in two directions such that a flow speed of the laser gas supplied in either of said two directions is less than a speed of sound at the throat portion; and

a waveguide unit having a plurality of slots for guiding microwaves into said gas supply path structure group, wherein said gas supply structure group includes a light-emitting portion for generating a laser beam, and the flow speed of said laser gas at said light-emitting portion is higher than a speed of sound,

(ii) a first optical system for radiating said illumination light from said laser oscillating apparatus onto a reticle in which a predetermined pattern is formed; and

(iii) a second optical system for irradiating said illumination light having passed through said reticle, onto a surface to be irradiated.

Claims 43 and 44 (Cancelled)

45. (Currently Amended) A method for producing a device comprising:

- (a) a coating step for coating a surface with a photosensitive material;
- (b) an exposing step for exposing a predetermined pattern in said photosensitive material; and
- (c) a developing step for developing said photosensitive material on said surface after said exposing step (b) wherein said exposure step includes
 - (i) generating illumination light by irradiating a laser gas in a gas supply path structure including a first port serving as a first fluid inlet and a second fluid outlet, a second port serving as a second fluid inlet and a first fluid outlet and a throat portion provided between the first and second ports wherein the first and second ports are symmetric with respect to the throat portion as a center;
a gas supplier capable of supplying a laser gas into the gas supply structure in two directions such that a flow speed of the laser gas supplied in either of said two directions is less than a speed of sound at the throat portion; ~~having a~~

~~convergent-divergent nozzle for controlling a flow speed of said laser gas less than a speed of sound for controlling a flow speed of said laser gas less than a speed of sound with~~
microwaves guided by a waveguide unit having a plurality of slots;

(ii) guiding said illumination light by a first optical system onto a reticle in which a predetermined pattern is formed; and

(iii) guiding said illumination light having passed through said reticle by a second optical system, onto the surface to be irradiated.

46. (Previously Presented) The method according to claim 45, wherein said surface to be coated is a wafer surface and a step of forming a semiconductor element on said wafer surface.

47. (Currently Amended) A method for producing a device comprising:
(a) a coating step for coating a surface with a photosensitive material;

(b) an exposing step for exposing a predetermined pattern in said photosensitive material; and

(c) a developing step for developing said photosensitive material on said surface after said exposing step (b) wherein said exposing step includes

(i) generating illumination light by irradiating a laser gas in a gas supply structure group to generate a laser beam at a light emitting portion thereof. said gas supply structure group including a first port serving as a first fluid inlet and a second fluid outlet, a second port serving as a second fluid inlet and a first fluid outlet and a throat

portion provided between the first and second ports wherein the first and second ports are symmetric with respect to the throat portion as a center;

a gas supplier capable of supplying a laser gas into the gas supply structure in two directions such that a flow speed of the laser gas supplied in either of said two directions is less than a speed of sound at the throat portion; having a plurality of connected convergent-divergent nozzles, for controlling a flow speed of said laser gas with microwaves guided by a waveguide unit having a plurality of slots, wherein the flow speed of said laser gas at said light emitting portion is higher than a speed of sound,

(ii) guiding said illumination light by a first optical system onto a reticle in which a predetermined pattern is formed; and

(iii) guiding said illumination light having passed through said reticle by a second optical system, onto the surface to be irradiated.

onto a surface to be irradiated.

48. (Previously Presented) The method according to claim 47, wherein said surface to be coated is a wafer surface and a step of forming a semiconductor element on said wafer surface.